Role of Data Analytics in Business Intelligence

Article · April 2021

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Abstract:

Nowadays Businesses are faced with terribly extreme realities in the hyper-competitive world, and data drives it. Companies that have the most effective information make the fewest mistakes, that successively help them to remain ahead of the pack. Today's digital society through the explosion of huge information and also the net of things has produced a large amount of data. To create any sense of all this information is the challenge. With all of this information what is helpful and what is not? That's why Data Analytics is so essential for today's industries. This can help businesses become smarter, more efficient and more productive. This is used to discover hidden patterns, market trends and client preferences for the advantage of organizational decision making. It will produce a clear competitive advantage while boosting both conversions and revenue. Data information and knowledge have always played a very important role in business. In Data Analytics a huge amount of raw data is collected and arranged to come up with Statistical explanations out of the accessible information and make actionable insights from it. The amount of different types of data that can be collected and stored is increasing. So Companies would like new solutions for analysis and processing the data. The paper aims to demonstrate that, how Data Analytics is effective in managing the company, also discussed where Data Analytics helpful to improve business performance.

Key Words: Data Analytics, Data Analyst, Business Intelligence, Technology, Data Analysis.

Introduction:

Because the workplace becomes more tech-driven and fast-paced, Data Analytics and also the skills gained from Data Analytics plays a vital role in business. A couple of years ago, businesses would gather information and run analysis, which can be used for decision-making within the future. However, nowadays the companies can acknowledge the requirement for immediate decisions. The companies have a competitive edge to stay agile and work faster. The amount of data being generated every year is expanding at an unprecedented rate. It is estimated that 80% of all of the world's data that has ever been created was produced within the last two years, and this rate is increasing every year. We tend to get information from social media

like Twitter, Facebook, Articles, News, Stories, Announcements, Online blogs, Emails and YouTube Videos, etc., Data permits companies to obtain real-time business intelligence that they might never access within the past from their typical internal systems. Most of the organizations have realized that if they will capture all the information into the business, by applying analytics they can get the necessary information from them. Important insights into their sales that they might not have known in the past, providing you with the ability to close gaps in the sales processes. Each new piece of data encourages business growth. The ability to predict future business trends with accuracy is one of the crucial competitive benefits of this new decade. Business Analysis will build or break a business in today's marketplace. Data Analysis is extremely helpful to know what customers are thinking, to plan new products, to know the competitor's strengths and weakness, to monitor fraud and cyber-attacks, to defend against terrorist acts and several other purposes. The requirements of business persons from last years were completely different than those of today. The majority of business transactions or a minimum of half of the deals occur online. Extracting useful information from the massive information set is the big challenge. To get the revolutionary transformation in research invention and business intelligence Data Analytics will guide us.

Data Analytics:

Data Analytics refers to the process of examining datasets to conclude the information they contain. Data Analytic techniques enable us to take raw data and uncover patterns to extract valuable insights from it. Nowadays several data techniques use specialized systems and software that integrate machine learning algorithms, automation and other capabilities. Data Analysts and Data Scientists use Data Analytics techniques in their businesses and research, they have also used this technique to present their results. Companies use Data Analytics to better understand their customers, ad campaign evaluation, modify content, create content strategies and develop products. Ultimately, businesses will use Data Analytics to improve the business performance and their bottom line. For example, Gaming companies use Data Analytics to set reward schedules for players who keep the majority of players active in the game.

Steps Involved in Data Analysis:

1. The first step is to determine which type of data is required or how the data is grouped. Data is grouped based on demographics, age, income or gender. Data values may be numerical or categorical.
2. The method of collecting the data is the second step of Data Analytics. This may be done through different types of sources like computers, online sources, cameras, environmental sources or personnel.
3. After collecting the data, it should be organized so the collected data can be analyzed. The companies may use spreadsheets or alternative types of software which will take statistical data.
4. Before analysis, the Data is cleaned. This means it's scrubbed and checked to confirm there is no duplication or error. Before analyzing the Data this step helps to correct the errors.

Requirement of Data Analytics in a Company:

Companies have started adopting an optimized methodology for the optimum distribution of resources to care the path of a company's growth instead of hopping on a shot and error methodology. The simplest and best methodology of implementation has been incorporating techniques of Data Analytics. The business data acquired by large corporations is too complex to be processed by conventional data processing applications. There are better ways to collect useful information which can support proper decision-making and help uncover patterns.

In the following key areas, Data Analytics helps a company
  ❖ **To predict trends and behaviors of the client**

❖ **To analyze, interpret and deliver the data in meaningful ways**
❖ **To increase the productivity of a business**
❖ **To drive effective decision making**

Data plays a significant role in companies when it comes to crucial decision-making.

Data Analytics in Business:

Nowadays most businesses are online. Through a website they market their online presence, they use simple or complex or even e-commerce portal that allows people to order online. Data Analytics Techniques are very useful to know about their online customers.
Following are some important areas which are helpful to improve the business by using Data Analytic Techniques

Demographics Based Sales Strategies:

Gathering information about your customers, who have opened your website, from which location, who are they, which age group they are, gender also equally important, how they are spending their money, with all these data we can decide which group is more profitable for your business. This data is useful to understand whether your business is reaching the right customers or not. Data Analysis regarding the Demographic reach of a website user to understand why a specific geographic zone has a larger interest. This may give very important inputs if people are merely searching for a particular product and visiting your website or there is real interest. Then you will understand when you need to advertising, who to market. If you know the real customers you can focus only on those people and you can give the best deals to them because they are spending money for you. Using this data you can target only potential customers that fall into your customers demographic. You will not waste time on those people who won't buy your products.

Conversion Rate:

Online promotion campaigns, through economical, compared to traditional media advertising. These campaigns are not resulting in adequate conversions as customers, then there is a necessity to review the complete promoting strategy. Cost per conversion is the simple method to calculate this. If the cost per conversion is low then you get the best results. Otherwise, it affects the profits a business would make from a customer. Unless the Organization is trying to popularize a product or service and is not concerned about the financial gain. Yet, knowing how much money is spending on advertising digitally and the results prove whether it is helpful while comes to draw a social media promoting strategy or revising an existing one.

Predicting Customer Behaviour:

Online data that a business captures from a website and its analysis can provide some knowledge of client behavior. **Each business needs repeated customers from different areas. For placing orders a customer repeatedly visits a website helps to predict the behavior over the future few months and you can build offers that ensure loyalty. After a single order or inquiry, a customer doesn't return the shop means you need to do some work to convert them into regular customers. Predicting the behavior of a client is not a simple task. It needs a skilled Data Analysts software package and integration with customer relationship management systems. To make decisions for any business decision making Data Analyst is a must. Data Analysts provide insights to know whether the business is headed in the right direction or needs to be done to steer it on the desired track. Data Analytics helps to identify market trends and needs while finding why some products or services are faring well whereas others lag. To make important decisions this data is very helpful. Including**

expansion of the market, widening the range of products or services, policies of pricing and customer care, and others. Using data and its analysis a company takes decisions to retain an upper hand over competitors. Rather than guesswork or ambiguous information, companies can base their decisions on genuine data.

Reducing Organizational Cost:

To set up efficient manufacturing processes, with demand-driven production and optimum utilization of raw material Data Analytics is very useful. Another way of achieving cost efficiency in operations and production is automation and Artificial Intelligence usage to reduce manual work. Data technologies like cloud-based analytics and Hadoop can bring huge cost advantages if it relates to the storage of large data. To do successful business they can identify efficient ways. With this, you can save money in terms of infrastructure too, save on the cost of developing a product which is a perfect market-fit.

Increasing Work Efficiency and Productivity:

Boosting confidence among the employee's data-driven decision-making is helpful. When you are asked to make decisions by themselves employees become more proactive and productive. This increases the efficiency of the whole Organization. To help competitive pricing and bring in the associated revenue benefits you need to create different pricing strategies. To gain the price advantage, Organiz competing for similar products and services you can take the help of Data Analytics. The advancement in technology makes data collection convenient. This data helps to know the performance of the employees in the business.

Driving Brand Loyalty:

Customers are interested to respond more to relationship-driven marketing. Organizations will leverage their prior information of a client's needs expectations and provide services consequently using Data Analytics. With this, you can increase the chances of repeat orders and maintain long-term relationships.

Hiring Smart People for Smart Jobs:

Data Analytics technologies play a very important role to identify candidates for HR managers by accessing profiled data from social media, business databases and job search engines. In traditional hiring techniques always you have an element of uncertainty, but in this method, companies hire quick and more reliable persons. If Organizations use data analytics in all platforms, hire candidates who are in sync with their policy is easy for them.

Aids in Decision Making:

Taking business decisions will be more comfortable if you have data to look at because with the help of data you will know what works well and where you need to improve. If any product is selling very well you need to spend more time and energy developing similar items to it. If any product is difficult to sell, you can discontinue or reduce the price of the product. From the data, if you observe that customers wish for higher service or need more of something to meet their expectations you should give training to your employees. If the customers are pleased with their experience without any advertisement, you can spend that money on improving other areas of your business. You can make decisions very quickly if you know how your company is doing on facts, not just feelings.

Conclusion:

As we are moving ahead in the digital world we can collect tons of information with a single click. Analyzing data and the decision-making process will become more complicated. The importance of Data Analytics is truly changing the world. Data is increasing at a rapid speed and the rate of growth of information is very high. Analyzing this big data using traditional methods is almost impossible. If it gets wasted, lots of valuable information will be lost. Data Analytics has changed the way people used to act in almost all the fields like Sports, Business, Healthcare, Education, Transportation, Security, Risk management, Risk detection, etc. Data Analytics plays an important role to improve business performance in the fields like developing Artificial Intelligence, knowing about Demographic-based sales and strategies, predicting customer behavior, reducing Organizational cost, increasing work efficiency and productivity, hiring smart people for smart jobs, etc. Data Analytics has unlimited potential.

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